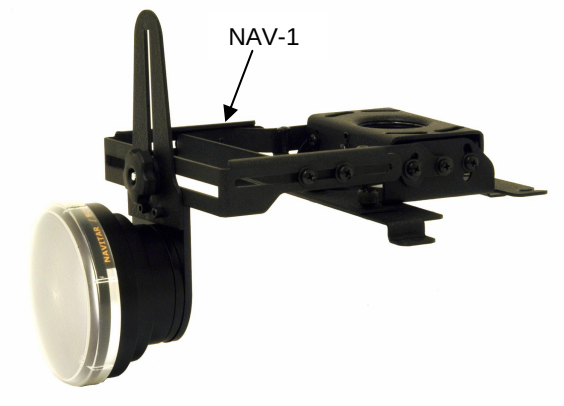
INSTALLATION INSTRUCTIONS

NAV-1 Lens Support

The NAV-1 Lens Support is compatible with any RPA projector mount. The NAV-1 readily adapts to the following ScreenStar Conversion Lens from Navitar: SSW08 and SST120.



NAV-1 LENS SUPPORT

NAV-2 Lens Support

The NAV-2 Lens Support is compatible with any RPA projector mount. The NAV-2 will readily adapt to a conversion lens that is not screw-mounted to the lens support. The NAV-2 Lens Support can also be used on projectors that have an inset lens.

NAV-2 LENS SUPPORT

BEFORE YOU BEGIN

- **CAUTION: To prevent damage to the mount, which could affect or void the Factory warranty, thoroughly study all instructions and illustrations before you begin to install the mount brackets. Pay particular attention to the "Important Warnings and Cautions" on Page 2.**
- If you have any questions about this installation, contact Chief Manufacturing at 1-800-582-6480 or 952-582-6480.

CHIEF Ideas Supporting Ideas

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04/07

IMPORTANT WARNINGS and CAUTIONS!

WARNING **A WARNING alerts you to the possibility of serious injury or death if you do not follow the instructions.**

CAUTION A **CAUTION** alerts you to the possibility of damage or destruction of equipment if you do not follow the corresponding instructions.

- **WARNING** **Improper installation can result in serious personal injury! Make sure that the mounting surface can support a redundant weight factor *five times* the total weight of the equipment. If not, reinforce the structure before installing the applicable lens support on the projector**.
- **WARNING** **Be aware of the potential for personal injury or damage to the unit if it is not adequately mounted.**
- **CAUTION** Inspect the unit for shipping damage.

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TOOLS REQUIRED FOR INSTALLATION

- Phillips screwdriver
- 9/64” Allen wrench or Hex wrench

NOTE: Other tools may be required depending on the method of installation.

REFERENCE CHART

Table 1 provides a reference chart to help you quickly find the installation instructions you need.

Table 1. Installation Reference Chart

Model	Product Name	Ref. Pages
NAV-1	NAV-1 Lens Support	4 thru 7
NAV-2	NAV-2 Lens Support	8 and 9

INSPECT NAV-1 PARTS BEFORE ASSEMBLY

Remove and Inspect the NAV-1

1. Open the shipping container and remove the NAV-1 from the container.
2. Carefully inspect the NAV-1 for shipping damage. If any damage is apparent, call your carrier claims agent and do not continue with the assembly procedure until the carrier has reviewed the damage.

   NOTE: Read all assembly instructions before starting assembly.

3. Carefully inspect all components for damage. See Table 2, Figure 1, and Figure 2.

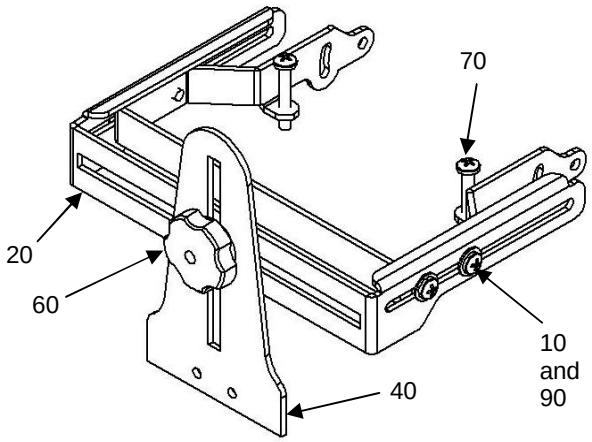


Figure 1. NAV-1 Lens Support

Table 2. NAV-1 Parts

ITEM	PART NAME	QTY
10	MAIN PLATE	1
20	FRONT ADJUSTABLE PLATE	1
30	SEMS SCREW, PAN, SELF-TAPPING, PHILLIPS	4
40	FRONT PLATE	1
50	1/4-20 X 3/4" CARRIAGE BOLT	1
60	KNOB	1
70	10-24 X 1-1/4" PHILLIPS HEAD MACHINE SCREW BZ	2
80	10-24 X 5/8" PHILLIPS HEAD MACHINE SCREW BZ (NOT SHOWN)	4
90	#10 SAE FLAT WASHER BZ	4

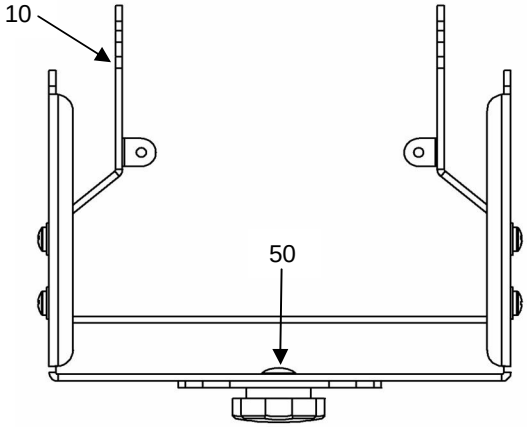
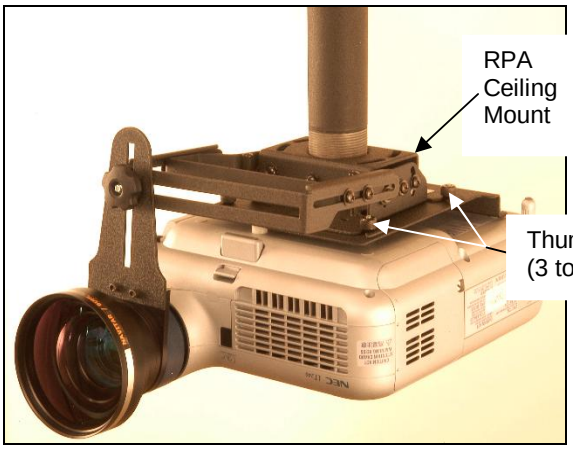


Figure 2. NAV-1 Lens Support (Top View)

NAV-1 INSTALLATION PROCEDURES

To install the NAV-1 Lens Support (hereinafter called the NAV-1), perform the following procedures:

- Removing Projector from Ceiling Mount
- Attaching NAV-1 to RPA
- Installing and Adjusting Lens
- Adjusting NAV-1 to Projector Lens



Completely Installed NAV-1 — EXAMPLE

Removing Projector from Ceiling Mount

The projector must be removed from the mount before installing this accessory. With an assistant, remove projector from RPA ceiling mount as follows:

NOTE: If your projector is not installed on the RPA ceiling mount, proceed to the next procedure.

1. Power-off the projector.
2. Disconnect the power cord that supplies electric power to the projector.
3. Disconnect the audio/video cables from the projector.
4. Loosen the thumbscrews securing the projector to the RPA ceiling mount.
5. Carefully slide the projector forward until the projector releases from the RPA ceiling mount.
6. Remove the projector.

Figure 3. Video Projector — Typical

Attaching NAV-1 to RPA

Attach the NAV-1 to the RPA projector mount, as follows:

NOTE: The four screws and washers removed from the RPA are located closest to the projector lens. Do not remove the screws and washers from the second set of slotted holes on the RPA.

1. On the RPA, remove two screws from the first set of slotted holes on the RPA. See Figure 4.

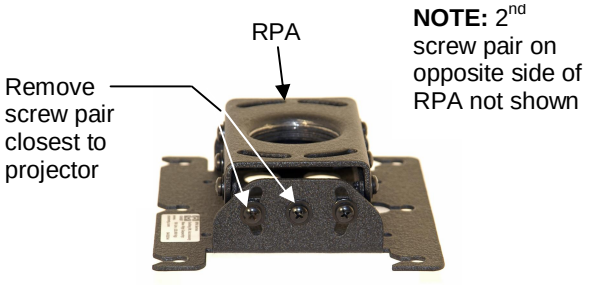


Figure 4. Remove front screw pair from RPA

2. Remove the two center screws from the RPA.
3. On the NAV-1, loosen the two screws on each side to allow the bracket to extend backward and forward.
4. Slide the NAV-1 over the RPA projector mount, as shown in Figure 5.
5. Align the slotted holes on the NAV-1 with the slotted holes on the RPA. For reference, see step 1.
6. Locate the parts bag supplied with the NAV-1. Find four 5/8" screws (80) and four #10 washers (90).

   NOTE: Leave the four screws (80) loose. These screws will be adjusted and tightened later.

7. Attach the NAV-1 to the RPA by installing four screws (80) and washers (90) into the threaded holes on the RPA. Figure 5.

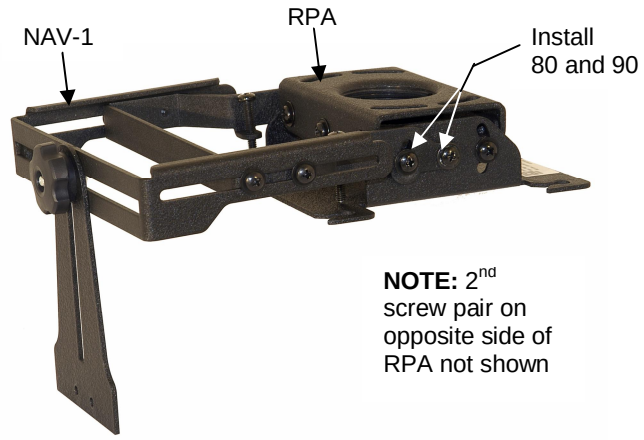


Figure 5. Attach NAV-1 to RPA

8. Find two 1-1/4" Phillips screws (70) in the parts bag.

   NOTE: Stop threading each screw (70) when the end protrudes through the bracket hole approximately ¼" as shown in Figure 6.

9. Install two screws (70) in the threaded tabs on the NAV-1. See Figure 6.

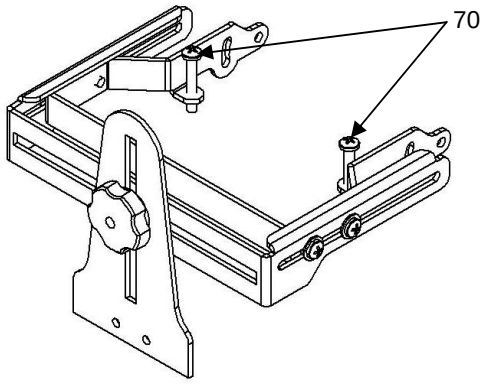


Figure 6. Install Angle Adjustment screws

Installing and Adjusting Lens

Install and adjust the NAV-1 lens, as follows:

1. Attach conversion lens plate behind the front plate (40) on the NAV-1. Use the two screws and hex wrench that are provided with the conversion lens. See Figure 7.

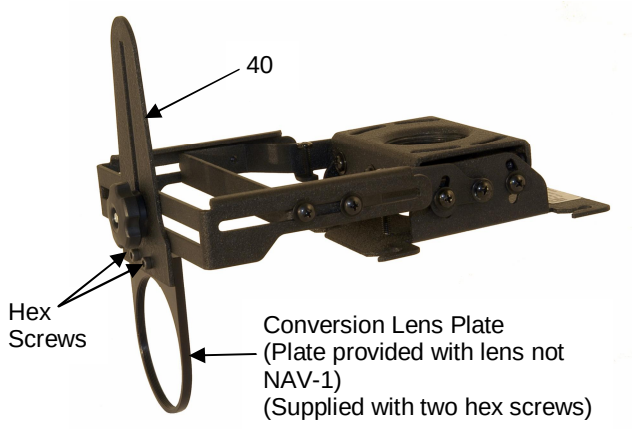


Figure 7. Attach Conversion Lens to Adjustable Plate

2. Loosen the knob (60) on the NAV-1. Extend the front plate (40) down all the way and finger-tighten the knob. See Figure 8.

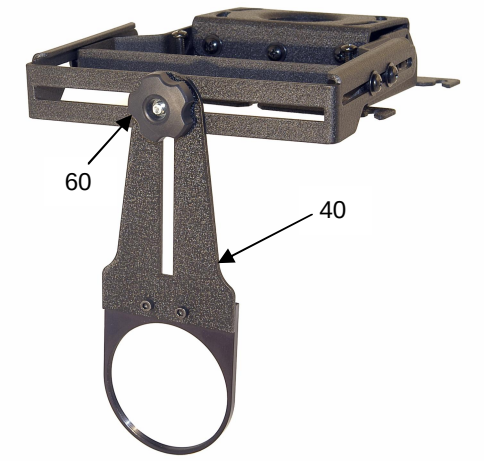


Figure 8. Leave Front Plate in Down Position

3. With an assistant, install your projector back on the ceiling mount at this time. Secure all thumbnuts and audio/video cables. Do not restore power to the projector at this time. See Figure 9.
4. Install the conversion lens at this time. Screw the lens into the lens plate that is attached to the front plate (40). See Figure 9.

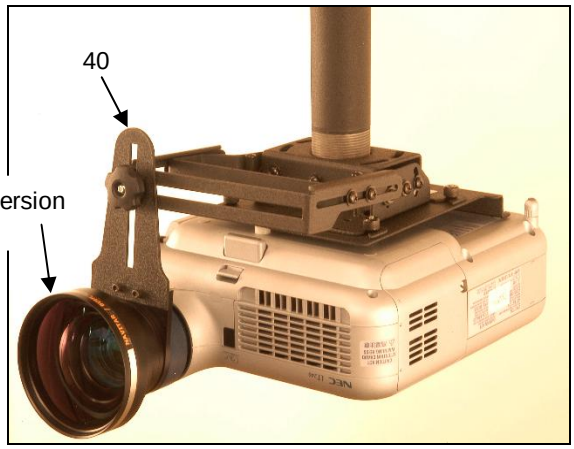


Figure 9. Install Conversion Lens

Adjusting NAV-1 to Projector Lens

The NAV-1 lens support can be adjusted to accommodate different projector models and lens placement. See Table 3.

Table 3. NAV-1 Specification Chart

Pitch:	20° down and 10° up
Extension:	3 inches from projector mount
Lateral Shift:	6-1/4 inches
Height Adjustment:	3-1/5 inches up and down on front lens plate.

Refer to Figure 10 and adjust the NAV-1 lens to the RPA projector lens, as follows:

Pitch Adjustment

1. To adjust lens pitch, adjust the two angle screws to raise or lower the lens. This adjustment aligns the conversion lens with the projector lens.

Extension Adjustment

2. To adjust lens extension (raise or lower the lens), do the following:
   a. Loosen four screws (30) and washers (90) on the side of the front adjustable plate (20).
   b. Slide the front adjustable plate (20) back so the lens is approximately 1/8” to 1/4” from the projector lens.
   c. Tighten the four screws (30) and washers (90).

Lateral Shift Adjustment

3. To adjust lateral shift, do the following:
   a. Loosen the knob (60) and slide the lens left or right to the center of the projector lens.
   b. Tighten the knob (60).

Height Adjustment

4. For height adjustment, do the following:
   a. Loosen the knob (60) and slide the NAV-1 lens up or down.
   b. Tighten the knob (60).

Adjustment Notes

NOTE: Except for fine-tuning, the NAV-1 is adjusted after completing the adjustment process. However, after restoring power to the projector, you may want to repeat a particular adjustment procedure in order to make minor changes.

NOTE: Depending on your projector model, it may be necessary to adjust the lens at a slight angle to the projector lens, which helps to correct keystone.

NOTE: If you have difficulty with the lens alignment, contact Navitar Inc. Call Navitar’s Customer Service Department at: 1-800-828-6778.

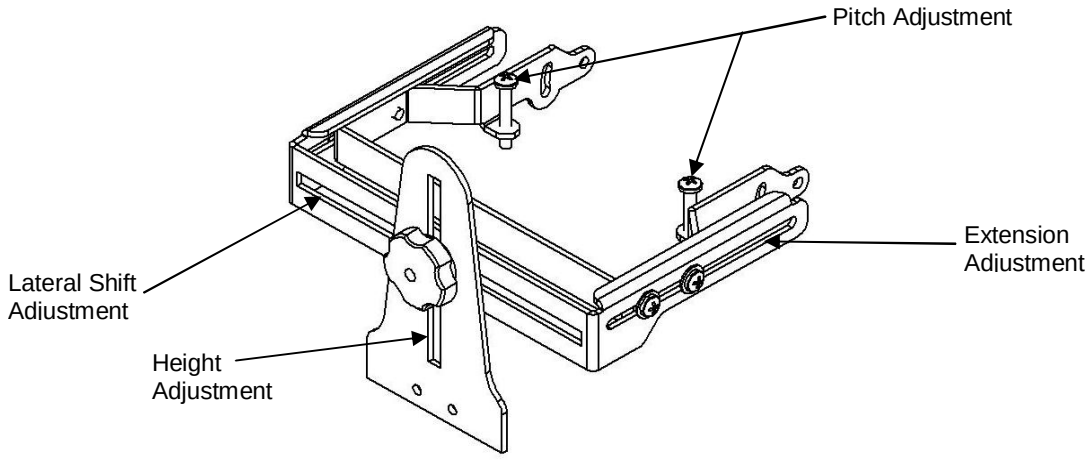


Figure 10. Adjust NAV-1 Lens

INSPECT NAV-2 PARTS BEFORE ASSEMBLY

Remove and Inspect the NAV-2

1. Open the shipping container and remove the NAV-2 from the container.
2. Carefully inspect the NAV-2 for shipping damage. If any damage is apparent, call your carrier claims agent and do not continue with the assembly procedure until the carrier has reviewed the damage.

   NOTE: Read all assembly instructions before starting assembly.

3. Carefully inspect all components for damage. See Table 4, Figure 11, and Figure 12.

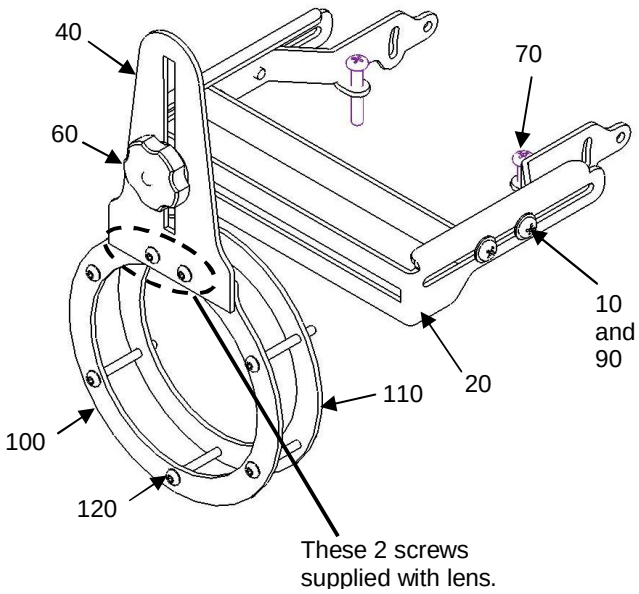


Figure 11. NAV-2 Lens Support

Table 4. NAV-2 Parts

ITEM	PART NAME	QTY
10	MAIN PLATE	1
20	FRONT ADJUSTABLE PLATE	1
30	SEMS SCREW, PAN, SELF-TAPPING, PHILLIPS	4
40	FRONT PLATE	1
50	1/4-20 X 3/4" CARRIAGE BOLT	1
60	KNOB	1
70	10-24 X 1-1/4" PHILLIPS HEAD MACHINE SCREW BZ	2
80	10-24 X 5/8" PHILLIPS HEAD MACHINE SCREW BZ (NOT SHOWN)	4
90	#10 SAE FLAT WASHER BZ	4
100	OUTER RING SUPPORT	1
110	INNER RING SUPPORT	1
120	08-32 X 1-1/4" SOCKET HEAD CAP SCREW	5
130	9/32" HEX KEY (NOT SHOWN)	1

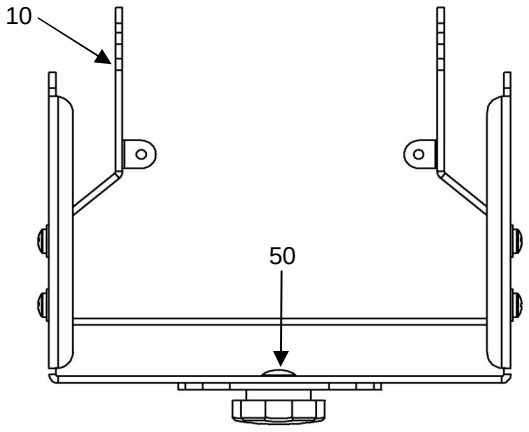


Figure 12. NAV-2 Lens Support (Top View)

NAV-2 INSTALLATION PROCEDURES

Except for the “Installing and Adjusting Lens” procedure provided in this section, the NAV-1 and NAV-2 installation procedures are the same.

Table 5 provides a cross-reference list of the NAV-1 installation procedures. Refer to the corresponding NAV-1 procedure to install the NAV-2.

Table 5. Cross-Reference List

NAV-1 Installation Procedures	Ref. Page
Removing Projector from Ceiling Mount	4
Attaching NAV-1 to RPA	5
Adjusting NAV-1 to Projector Lens	7

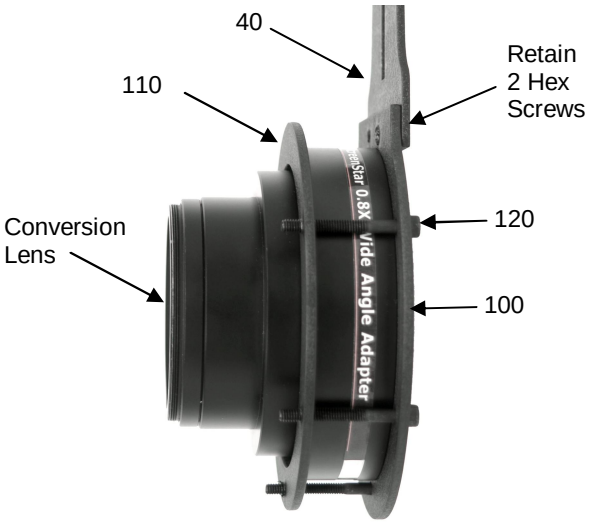


Figure 13. Assemble Ring Supports with Lens

Installing and Adjusting Lens

Install and adjust the NAV-2 conversion lens, as follows:

NOTE: Retain the two screws (not shown) that are provided to attach the front plate to the main plate (40).

1. Using the 9/32” hex wrench (130) and five socket head cap screws (120), assemble the outer ring support (100) and inner ring support (110) with the lens (not shown) as shown in Figure 13. Tighten the screws.
2. Using two hex screws, attach outer ring support (100) behind the front plate (40) on the NAV-2. Loosen the knob (60) on the NAV-2. Extend the front plate (40) down all the way and finger-tighten the knob. See Figure 14.
3. With an assistant, install your projector back on the ceiling mount at this time. Secure all thumbnuts and audio/video cables. Do not restore power to the projector at this time. See Figure 15.

   NOTE: Refer to “Adjusting NAV-1 to Projector Lens” to make the final adjustments.

4. Adjust the conversion lens and height of front plate (40), as needed. Tighten the knob (60) on the NAV-2. See Figure 15.

Figure 14. Leave Front Plate in Down Position

Figure 15. Adjust Lens